

# Executive Summary

- The OIG's FY 2005 list of the most serious management and performance challenges facing the National Science Foundation appears on p. 49.
- OIG conducted an audit of the Math and Science Partnership (MSP) Program to determine the effectiveness of its evaluation processes. The audit reviewed nine partnerships funded in FY 2002 and found that five had effective evaluation plans, but four were missing key evaluation elements although steps could be taken to address these issues. Further, although NSF indicated it planned to evaluate the overall MSP program, it had not yet formalized its plans for a program evaluation process or set definitive timeframes or deadlines. (See p. 13)
- At the Agency's request, OIG contracted with the Defense Contract Audit Agency (DCAA) to perform an incurred cost audit of NSF's Antarctic Support Services Contractor. In September 2004, DCAA staff reported on the interim results of the first phase of this audit. Of the \$363 million total costs claimed by the Contractor for the three-year period ending December 31, 2002, the auditor questioned \$29.2 million because the Contractor improperly billed indirect costs to the contract. (See p. 15)
- An audit of a foreign treaty organization that has received \$16.4 million in NSF awards for global change research found that NSF, on behalf of the United States, is funding a disproportionate share of the organization's total costs. This occurred because 18 other member countries did not provide research contributions in the amounts originally anticipated. As a result, the foreign organization had average annual expenditures of only \$2.6 million or 82 percent less than expected, thereby impeding its ability to achieve its research goals. The U.S. contribution, which was initially expected to comprise 25 percent of the organization's total funds, actually represented 87 percent of its income from 1996 to 2003. (See p. 17)

- The owner of a company that received Small Business Innovation Research (SBIR) awards from NSF and other Federal agencies pleaded guilty to mail fraud and tax evasion. The owner sent a progress report to NSF for his SBIR Phase II award that included research previously conducted by the company under an Air Force SBIR award. He also used Federal SBIR funds to pay for personal expenses, such as repairs and improvements to his home, thereby evading over \$93,000 in income tax on his personal tax return for 1999. The total loss of Federal funds related to the subject's fraudulent scheme is estimated at \$1.4 million. (See p. 25)
- After receiving an allegation that a postdoctoral scientist fabricated and falsified data in a published research paper, OIG concluded that the researcher knowingly and intentionally fabricated data in multiple analyses to make it appear that replicate experiments had been completed when in fact only a single analysis had been performed. The scientist's actions ultimately led to the retraction of the entire publication in which the fabricated and falsified data appeared. We recommended that NSF make a finding of research misconduct against the subject and debar him for two years. (See p. 28)
- OIG recommended that NSF debar a PI for two years for fabricating the existence of and citations for two manuscripts referenced in his two NSF awards. An investigation by the PI's university determined that he provided false biographical information as part of his NSF proposals. The PI cited two manuscripts as "submitted to" two prominent journals, and also referenced a "submitted" manuscript within the text of the proposal for his CAREER award. The manuscripts did not exist. The investigation also identified a pattern of misrepresentation by the PI that extended over a 10-month period. (See p. 29)